

ABSTRACT

The invention relates to a method for synthesizing a family of zeolite materials, grouped together under the name ITQ-16, in an OH⁻ medium and in the absence of fluorides and to the catalytic applications thereof. The zeolite ITQ-16 family of materials is characterized by having different proportions of distinct polymorphs A, B and C described as possible intergrowths in the Beta zeolite and, therefore, the X-ray diffraction patterns of said family are different from that described for the Beta zeolite. In its calcinated form, zeolite ITQ-16 has the following empirical formula: $x(MXO_2) : tTO_2 : gGeO_2 : (1-g)SiO_2$, wherein T is one or more elements having +4 oxidation status and different from Ge and Si; X is one or more elements having +3 oxidation status; and M can be H⁺ or one or more inorganic cations with a +n charge.